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RAILWAY SERVICE AND REGULATION

SUMMARY

War as emphasizing inadequacy of transportation facilities, 129. — Extra burdens upon transportation due to the war, 130. — History, extent and consequences of insufficient transportation facilities in the United States, 133. — Statistics of car shortage since 1907, 135. — Reasons for inadequate transportation facilities, 143. — Traffic conditions compared with expansion of railway plant, 143. — Duty of railroads to furnish adequate equipment, 145. — Popular misconception of car shortage, 146. — Aggregate supply of railroad equipment sufficient in most years, 149. — Relation of railroads to each other in exchange and interchange of cars; recent disregard of car service rules; unfortunate results of the historical relations of shipper and railroad, 150. — Early facilities in excess of needs, 153. — Significance of increase in number of commission and middle men, 157. — Position of Interstate Commerce Commission on reconsignment, 159. — Responsibility of government regulation, 161. — Importance of adequate return upon investment and transportation facilities, 161. — Necessity for extension of federal authority over railway service, 166. — Esch-Pomerene law only a beginning, 167. — Comprehensive control of railway service necessary even with continuation of government operation or adoption of government ownership, 170.

THE world war with its abnormal demands upon the railways of this country has strikingly emphasized the inadequacy of our transportation system. The extra burden thus thrown upon the railroads has been due, among other things, to a larger amount of traffic, a falling off of water-borne tonnage, and unusual labor conditions. In the first five months after a state of war was declared to exist between this country and Germany, the railroads handled more freight tonnage than in any whole year previous to 1904.[1] On 51 per cent of the railroad mileage of the United States in the summer of

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[1] Railroads' War Board, Official Information No. 18, November 27, 1917.

1917, there was an increase of 16 per cent, or 3,354,000,000 ton miles in one month. This was equivalent to adding 35,000 miles of railroad to that of the United States, with an average density of freight traffic on each mile equal to the average density of all railroads in the United States in 1915. This virtual addition to the fixed plant of American Railroads nearly equaled the total railway mileage of Germany in 1913 and exceeded that of Great Britain in 1914.[1] In the last annual report of the Pennsylvania Railroad Company,[2] it is claimed that the ton mileage of that system for the year 1917 exceeded by over 60 per cent the combined annual ton mileage before the war of all of the railroads in Great Britain and France.

That less water-borne traffic has been responsible for a part of this marked increase in rail traffic may be seen from the fact that vessels, not only from the Great Lakes but from our intercoastal trade, have turned to the more profitable ocean carrying trade. This shift is reflected in the percentage of our exports and imports which have been carried in American vessels since the war began. In the fiscal year 1914, this percentage was 9.7; in 1917, it was 18.6.[3] In the fiscal year 1915, there was a total of 335 vessels with 1,846,658 tons cargo in the coastwise trade from the Atlantic to the Pacific and *vice versa*. In the first half of the fiscal year 1917, there were but eighteen vessels with a tonnage of 97,363.[4] From testimony before the Newlands Committee, it appears that prior to the autumn of 1915 there never had been

[1] Railroads' War Board, Official Information No. 8, July 7, 1917.

[2] Seventy-first Annual Report (1917), p. 7.

[3] The figures from 1914 to 1917 (fiscal years) are as follows: 1914, 9.7; 1915, 14.3; 1916, 16.3; 1917, 18.6. Annual Report, Commissioner of Navigation, 1917, p. 101.

[4] Panama Canal Record, vol. x, p. 464. See also statement of Julius Kruttschnitt in hearings before the Committee on Interstate Commerce, U. S. Senate, 65th Congress, 2nd Session, pursuant to S. Res. 171, pp. 196, 197; hereafter referred to as Hearings on Government Control.

a record of a carload of grain moving from Oregon or Washington over the Union Pacific to the Atlantic Seaboard; that since that time, many thousand of carloads had been sent overland on that and other railways to Atlantic ports.[1]

Conditions in the labor market as a result of the war have made it difficult for railroads to maintain their former standards of efficiency. Losses of employees have been due to withdrawals to enter military service, as well as to enter industrial fields offering distinct advances in wages or salary. Consequently, the loss has not been confined to any one class. In December, 1917, the Railroads' War Board stated that the railroads generally were short-handed; that at that time some carriers reported a net shortage of 12½ per cent in the number of laborers, and a much larger percentage of loss in efficiency because of the necessity of filling vacancies with unskilled and inexperienced men.[2] In some engine houses the railroads were reported to be employing men who did not know the difference between a monkey wrench and a fire hook.[3] The effect of the loss in the lower tier of labor has been the more serious in view of the conditions which have affected immigration. Furthermore, unskilled laborers once secured by the railroads are constantly shifting to positions with industrial concerns, once they have learned of such possibilities. This has been true of large numbers of negroes that have been brought into northern states.[4] The last annual report of the Pennsylvania Railroad shows that that company hired 278,000 persons from all parts of the country and distributed them over its system.[1] This is at least four times as many men as were usually hired in order to keep up its force.[2] All this has meant less efficient transportation service and a deterioration in the railway plant. Locomotives have been used longer before sending them in for repairs because of the heavy traffic to be moved; once in the shop, they have received less efficient repairing, and have limped out only to return and repeat the process. Little wonder there should have been such a locomotive shortage during the severe winter of 1917–18.[3]

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[1] Testimony of Judge Lovett in Hearings before the Joint Committee on Interstate and Foreign Commerce, 65th Congress, 2nd Session, pp. 772–775; hereafter referred to as Newland's Hearings. See also statement by Commissioner Hall in Hearings on Government Control, pp. 46–47

[2] Railroads' War Board, Official Information No. 19, December 5, 1917.

[3] Railway Age, December 14, 1917, p. 1082.

[4] Traffic World, November 18, 1916, p. 1008.

These features of the transportation situation have been of sufficient importance to account for the inability of the carriers to meet the demands made upon them in the last two years. There is danger, therefore, that the war will receive much more consideration than it deserves as a direct cause of the inadequacy of our transportation facilities. The items above mentioned have received much attention in the press, while other less conspicuous but more fundamental factors, because more permanent, have not received the serious consideration to which they are entitled. Furthermore, in our regulation of railways in normal times, the charge which should be made for service has been emphasized. The character of the service itself has received too little attention.[1] It is therefore pertinent to inquire to what extent the transportation facilities of this country were inadequate even before the world war; to try to discover the causes for this condition of affairs; to examine the consequences of such inadequacy; and, finally, to suggest wherein our regulation and control of railways in future should give more attention to the sufficiency and efficiency of the service. Such a study of our transportation system is of value whether, as a result of the war, we have government ownership, or whether the roads be returned to their owners.

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[1] Annual Report, 1917, p. 5. President Rea observed, "The employment and training of these men was costly and seriously hampered operations, because many of them remained only a short time in the service." Ibid., loc. cit.

[2] The Railway Age, March 8, 1918, p. 490, states the number of new men hired by the Pennsylvania Railroad in 1917 as 177,000, and says "This is at least four times the number of men that had been taken on new in any previous year."

"The railways of the United States engaged in Interstate Commerce employ about 1,800,000 persons. If we include interurban and street railways, the number is increased to over two million. Now conceive, if you will, a great map of the United States on which each of these employees is represented by a tiny electric light. Some are moving along the familiar tangled lines indicating railway systems, but the greater number are stationary and grouped about the large terminals. Everywhere lights are being extinguished, sometimes by death, more often by the resignation or discharge of an employee; and everywhere new lights are appearing as new employees are hired. Five times a minute, 300 times an hour, 7200 times a day, employees are being lost and replaced. These figures are assumptions only, but they are conservative and probably far below the facts." From an article, "Mobilizing Intelligence on American Railroads," by Norman Collyer of the Southern Pacific Railway, in Railway Age, February 22, 1918, pp. 419–421.

[3] See ibid., April 5, 1918, pp. 907, 908. Both the lack of men to do repair work and the character of the repair work done are reflected in the 1917 report of the Inspector of Locomotives to the Interstate Commerce Commission.

The extent to which the American transportation system has failed at times in the past to meet the demands made upon it, is very difficult to measure. Statistics of so-called car shortage register in a general way the inability of the railroads to move traffic which is offered to them; but, as will appear later, the popular view is narrow in assuming that the inability of carriers to meet the demands made upon them is necessarily due to a shortage of equipment. In January, 1907, the American Railway Association began the publication of statistics of car shortage.[2] Table I (Appendix, p. 175,

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[1] See statement of Commissioner McChord, before National Association Railway Commissioners. Proceedings, 1908, p. 15.

[2] Fifty of the largest companies were chosen and asked to give facts concerning car shortages and car surpluses. The first report was made on January 2, 1907; the second on February 6, 1908. By that time the committee was so discouraged by the large car shortage that they did not make up another report until April, 1908. Then the American Railway Association met and instructed the committee to secure statistics every two weeks. These instructions were carried out after that with the exception of the period from October 15 to February 1, 1915, when the car surplusage was so great and railroad depression so marked that the American Railway Association temporarily discontinued the compilation as a matter of economy. After February 1, 1915, the statistics were compiled once each month by the Association. The U. S. Railroad Admin-

infra) gives these statistics from January 2, 1907, through 1917.[1] This table indicates the ability of the railroads to furnish equipment in various years and during certain seasons of the year. It will be observed from the column marked " Net Shortage " that conditions were acute in January and February of 1907; that the net shortage disappeared in July, 1907, and appeared again in September of that year and continued until the latter part of November. No net shortage appeared again until November of 1909, and then only to a minor extent. Not until the fall and winter of 1912 was there another net shortage, which was only a little less severe than that of the corresponding period of 1907, but it continued somewhat longer than in 1907. With the exception of a slight scarcity for about a month in the fall of 1913, no further net shortage appeared until the first of March, 1916. This continued for that month only; but was followed by another shortage beginning in September, which has continued since with varying degrees of intensity.

Examination of Table I and Chart I (based on data in Table I) shows that it is unusual for any car shortage to occur in the spring months and that it is heaviest during the autumn. The figures show that in April, 1908, there was a surplus of equipment of 413,338 cars; that from November, 1913, to March, 1916, there was a continuous surplus of equipment, the number reaching 200,000 even in the month of October, 1914, when the American Railway Association as an economy measure discontinued its statistics. When the Association resumed the col-

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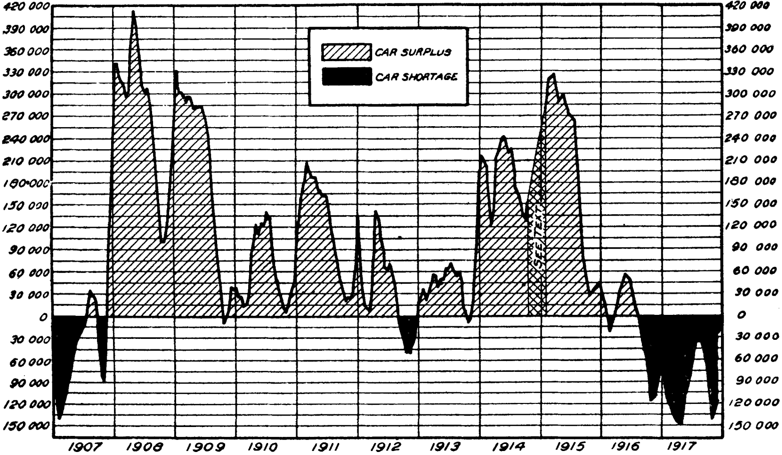
istration has not continued these statistics. See Proceedings National Association Railway Commissioners, 1908, p. 43. The figures in Table I have been taken from American Railway Association Bulletin No. 6, February 6, 1917, and from various later bulletins. Many valuable statistics also in Proceedings American Railway Association, vol. vii, pp. 522–575. See also House Report No. 1553, 64th Congress, 2nd Session, to accompany H. R. 20352, pp. 1–12.

[1] Statistics as given in Table I have not been continued since the railroads were taken over by the government.

lection of statistics on February 1, 1915, the surplus amounted to over 279,000. The shortage after the spring of 1916, as is well known, was coincident with a heavy war traffic.

Statistics of car location indicate that certain sections of the United States suffer much more than others on account of car shortage.[1] For example, box cars considerably in excess of ownership were on the lines serving what are known as New England, Southeastern,

CHART I



Trunk Line and Central Freight Association territories, represented on Map I [2] as groups 1, 2, 3, and 4. All the other groups were deficient in this class of equipment in comparison with their ownership. Southern, Southeastern and Trunk Line territory, represented by groups 2, 4, and 5 on Map II, are the sections that had less

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[1] Car location statements are given in Proceedings of American Railway Association, vol. vii, pp. 524–575. More recent statistics were presented by F. B. Dow, attorney for Interstate Commerce Commission in Hearings on Senate Bill (636), May 3, 1917. Statistics formerly published by American Railway Association are now published bi-monthly by the U. S. Railroad Administration.

[2] Maps from testimony of Dow, ibid., loc. cit.

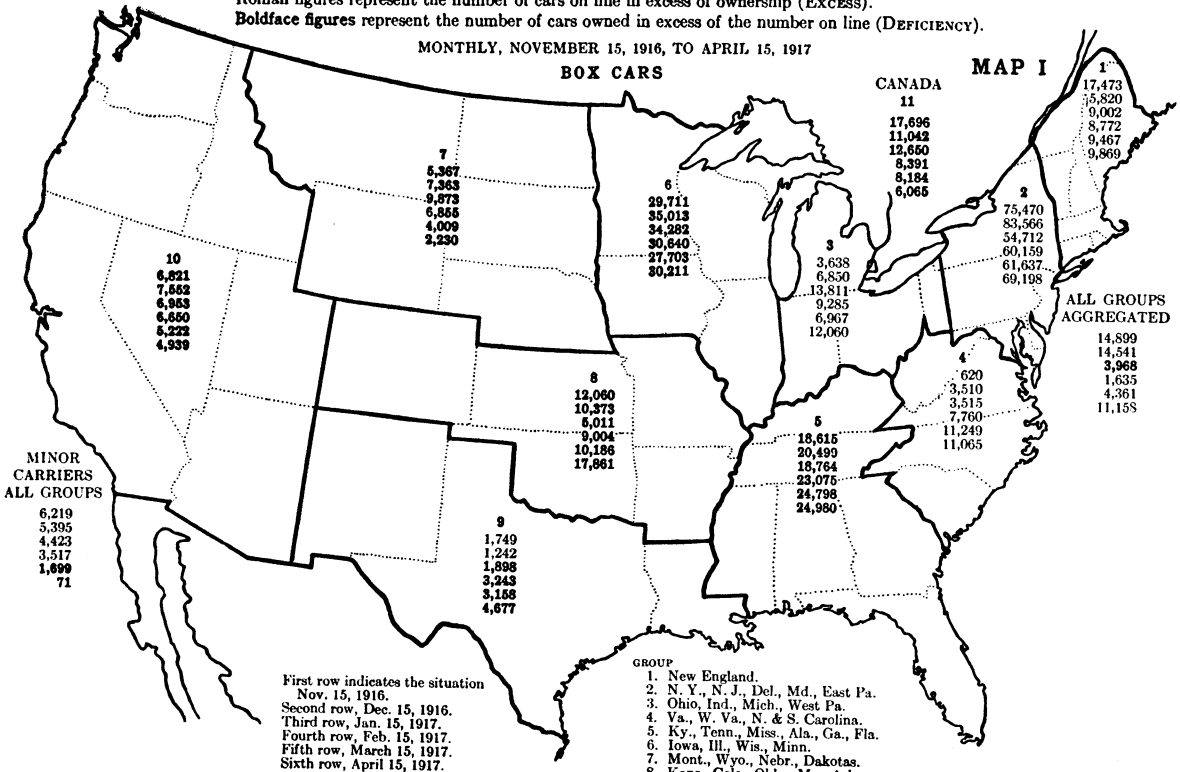
CAR LOCATIONS

Roman figures represent the number of cars on line in excess of ownership (EXCESS).
Boldface figures represent the number of cars owned in excess of the number on line (DEFICIENCY).

MONTHLY, NOVEMBER 15, 1916, TO APRIL 15, 1917

BOX CARS

MAP I



First row indicates the situation Nov. 15, 1916.
Second row, Dec. 15, 1916.
Third row, Jan. 15, 1917.
Fourth row, Feb. 15, 1917.
Fifth row, March 15, 1917.
Sixth row, April 15, 1917.

GROUP
1. New England.
2. N. Y., N. J., Del., Md., East Pa.
3. Ohio, Ind., Mich., West Pa.
4. Va., W. Va., N. & S. Carolina.
5. Ky., Tenn., Miss., Ala., Ga., Fla.
6. Iowa, Ill., Wis., Minn.
7. Mont., Wyo., Nebr., Dakotas.
8. Kans., Colo., Okla., Mo., Ark.
9. Tex., La., N. Mex.
10. Oreg., Wash., Idaho, Nev., Cal., Utah, Ariz.
11. Canada.

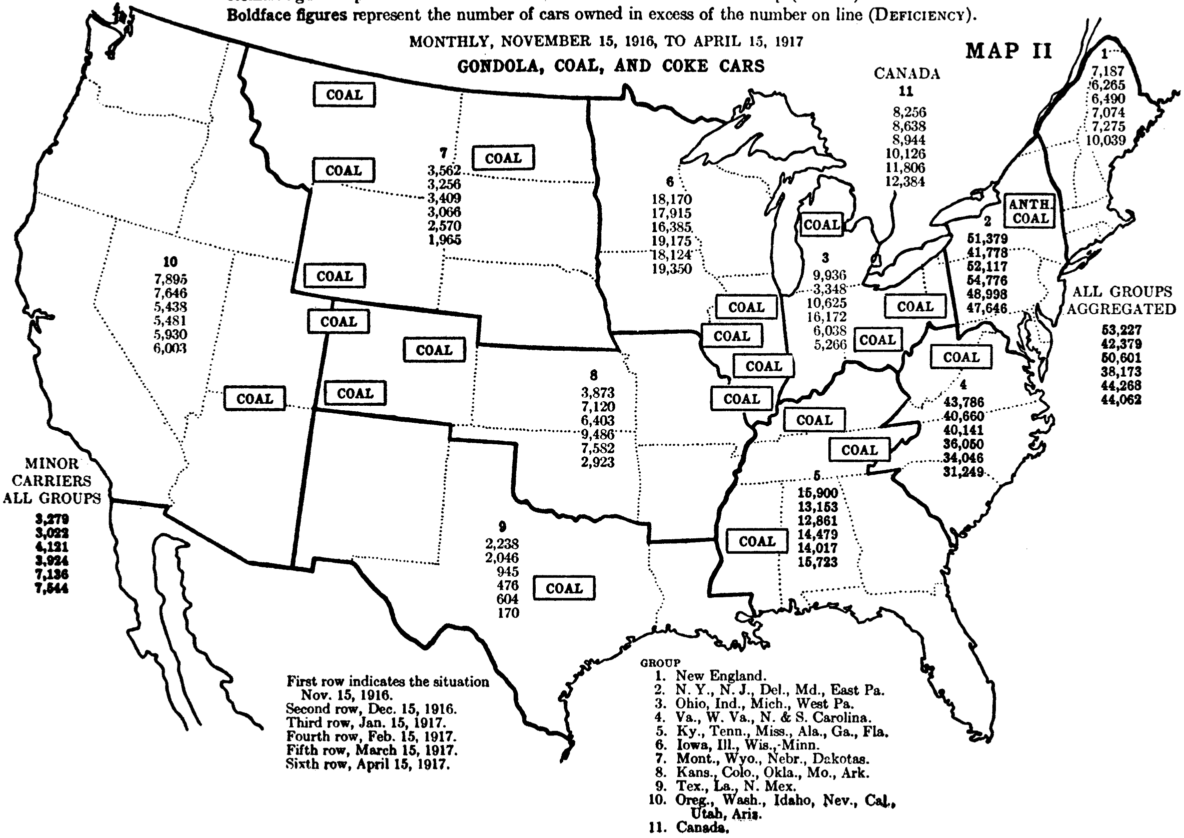
CAR LOCATIONS

Roman figures represent the number of cars on line in excess of ownership (Excess).
Boldface figures represent the number of cars owned in excess of the number on line (Deficiency).

MONTHLY, NOVEMBER 15, 1916, TO APRIL 15, 1917

GONDOLA, COAL, AND COKE CARS

MAP II



First row indicates the situation Nov. 15, 1916.
Second row, Dec. 15, 1916.
Third row, Jan. 15, 1917.
Fourth row, Feb. 15, 1917.
Fifth row, March 15, 1917.
Sixth row, April 15, 1917.

GROUP
1. New England.
2. N. Y., N. J., Del., Md., East Pa.
3. Ohio, Ind., Mich., West Pa.
4. Va., W. Va., N. & S. Carolina.
5. Ky., Tenn., Miss., Ala., Ga., Fla.
6. Iowa, Ill., Wis., Minn.
7. Mont., Wyo., Nebr., Dakotas.
8. Kans., Colo., Okla., Mo., Ark.
9. Tex., La., N. Mex.
10. Oreg., Wash., Idaho, Nev., Cal., Utah, Ariz.
11. Canada.

gondola, coal and coke cars on their lines than they owned. In 1916 the state of Nebraska memorialized Congress to enact legislation which, among other things, would insure the return of equipment to the roads in that section.[1] Conditions were so bad in Illinois about the same time that the Chairman of the Public Utilities Commission of that state made a trip to the seaboard to try to find out why railroad equipment of western lines was being detained in the East. He maintained that grain elevators in Illinois were full and that some elevators had received but one empty car a week, in some cases but one car per month.[2] On a tour in March, 1918, through seven states of the far West and Northwest for the United States Department of Agriculture, to stimulate a greater acreage of spring wheat, President Thompson of Ohio State University found that many of the alleged violations of the rules of the Food Administration in that area were due to the shortage of cars and transportation service. Areas that had much wheat could secure no substitutes; many small places were reported to have received but one car per month; potatoes were rotting in Idaho because they could not be marketed; live stock in some areas were almost starving, while but twelve hours away by rail, hay was rotting that could be transported.

In view of such unequal distribution of equipment among railway systems, it is not surprising to learn that the Interstate Commerce Commission discovered in its investigations in 1906 that in furnishing cars, railroads stipulated that their equipment should not go beyond their own line.[3] If the shipper did not care to consent to this arrangement, he received no cars. That the roads have continued to resort to this method of keeping their equipment at home is seen from the evidence which was given to Commissioner McChord at Louisville, Kentucky, in November, 1916.[1]

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[1] For copy of memorial, see Hearings before House Committee on Interstate and Foreign Commerce, 64th Congress, 2nd Session, on H.R. 19546 and H.R. 20256 and H.R. 20352, hereafter referred to as " Esch Hearings."

[2] Esch Hearings, p. 41.

[3] Kansas City Hearings, pp. 192, 196; Minneapolis Hearings, p. 137; St. Louis Hearings, pp. 3, 4, 7, 8, 36, 117, 118. See note 3, p. 139. See also Railway Age, April 26, 1907, p. 683.

The consequences of the inadequacy of the transportation system have been so insistently forced upon our attention since the outbreak of the war that comment concerning recent conditions is unnecessary. But it is not generally appreciated that transportation has been carried on under intermittent embargoes upon freight for more than a decade. Conditions were so bad more than ten years ago that the Interstate Commerce Commission made investigations, taking testimony relative to conditions at widely separated points.[2] Substantially, all told the same story of failure of transportation facilities and resulting commercial embarrassment and loss.[3] The investigations of the Interstate Commerce Commission at that time showed clearly that the business offered to the carriers was far beyond the transportation facilities. The Commission was informed that farmers, especially in the Northwest, were unable to market their grain because of the inability of the carriers to serve them; and that grain was being stored on the ground in some instances in bins eighteen to thirty feet deep, and covering acres of ground.[4] The testimony taken by the Commission showed that the country elevators were full because grain could not be shipped to important terminal elevators. Up to the time the Interstate Commerce Commission made the investigation, in the latter part of December, 1906, important terminal elevators had not been more than one-third full.[1] Naturally this meant much loss to the farmers, not only from grain spoiling or its destruction by vermin,[2] but also because grain buyers insisted upon much wider margins in all purchases, and hence offered a lower price to the farmer.[3] In some instances grain dealers refused to buy grain at any price, because of the uncertainty of getting it to market or the likelihood of damage through heating due to the unusual length of time it would be in transit.[4] Selling grain in terminal markets on contracts was extremely difficult if not impossible. Purchase at a loss was sometimes necessary to cover such contracts.[5] This uncertain movement of wheat and lack of transportation meant that flour mills were often forced to shut down, in some instances for two months at a time.[6] All this meant that farmers were forced to borrow money and pay interest on it and, in some instances, to pay storage and insurance on grain, which later they were compelled to sell at a reduced price. The president of a national bank in the Northwest presented to the Commission letters from 350 banks in his state that had accounts with his bank showing that farmers were obliged to hold their wheat because of lack of cars; and he indicated that altho ordinarily he would not be lending a dollar to these banks at that time of year, he had within a sixty-day period extended credit to these correspondents to the extent of $600,000.[1]

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[1] 42 I. C. C. R. 657 (662).

[2] Testimony was taken relative to conditions in such widely separated areas as the lumber producing regions of Oregon and Washington, the Southern cotton belt, the West Virginia coal fields, and the grain fields of Iowa, Kansas, Nebraska, and the Northwest.

[3] Testimony in Senate Documents, 59th Congress, 2nd Session, Nos. 233 (pp. 1–275) and 333 (pp. 1–502). Document No. 233 contains the testimony taken at St. Louis and Kansas City. The testimony taken at both places is paged consecutively in this document, hereafter referred to as "St. Louis Hearings" and "Kansas City Hearings." Likewise Document No. 333 contains the testimony taken at Minneapolis and Chicago, hereafter referred to as " Minneapolis Hearings " and " Chicago Hearings."

[4] Railway Age, December 7, 1906, p. 722.

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[1] 12 I. C. C. R. 561 (563).

[2] Chicago Hearings, pp. 396, 419, 420, 474, 475; St. Louis Hearings, p. 71, and Minneapolis Hearings, p. 117.

[3] Minneapolis Hearings, pp. 31, 97, 98–99, 113–114, 130, 133, 198; Kansas City Hearings, pp. 270–271.

[4] Kansas City Hearings, p. 212; St. Louis Hearings, p. 50; Minneapolis Hearings, p. 14.

[5] Minneapolis Hearings, p. 102.

[6] Kansas City Hearings, pp. 232, 270–271, 272; St. Louis Hearings, p. 48; Minneapolis Hearings, p. 133.

There was much trouble also in the marketing of live stock throughout the important live stock areas.[2] Dealers waited for cars weeks and even months. In instances where it was necessary to drive live stock some distance to the station, it had to be kept in yards or small pastures while waiting for cars. This often meant shrinkage in the weight of fat cattle to the extent of 200 pounds per head. It was sometimes necessary to wait so long for cars that it was too great a sacrifice to market cattle, and they were driven back to pasture. Those who were forced to sell their live stock, after waiting for weeks for cars at one station, were compelled to drive them across the prairie from seventy-five to two hundred miles to another railroad, there again to find conditions but little better.[3] The president of the American Live Stock Association testified that in Texas the delays in shipping cattle extended from two months to "any indefinite length of time."[4] The secretary of the same Association testified that in Wyoming it had been necessary to hold sheep at the loading station from thirty to sixty days; and then in some instances it was necessary to trail them for two hundred miles across the country to another railroad.[5] It was sometimes necessary to dip sheep as many as three times while waiting for cars.[6]

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[1] Minneapolis Hearings, pp. 119–120; 12 I. C. C. R. 564; for similar testimony by other bankers and elevator men, see Minneapolis Hearings, pp. 117, 132, 170.

[2] It was contended in the Kansas City Hearings (p. 148) that stock men of Panhandle, Texas, alone lost hundreds of thousands of dollars because of inability of railroads to furnish transportation.

[3] Testimony relative to the trouble live stock shippers had in securing railway service, in Kansas City Hearings, pp. 147, 148, 151, 153, 154, 155–158, 162, 163, 166, 173, 174, 175, 183, 190; St. Louis Hearings, pp. 69–70, 115–116; also Senate Doc. 311, 60th Congress, 1st Session (1908), Hearing on S. 3644, pp. 1–134.

[4] St. Louis Hearings, p. 145.

[5] Kansas City Hearings, p. 177.

[6] Ibid., p. 162.

Furthermore, when cars were furnished for live stock, trains moved so slowly that it meant much shrinkage before markets could be reached.[1] Railroads even provided contracts which it was said "shippers had to sign "[2] which gave the railroad the right to ask a shipper to unload at the terminal of their road in order to keep their equipment from going off their own line.[3] Hence shippers were often seriously limited in the markets they were able to reach without great inconvenience and loss.

In the South there was much trouble in the shipment of cotton. Railroad platforms were piled full, and it was stacked upon the ground.[4] Lumber mills found it impossible to run much of the time.[5] The President of the St. Louis Lumber Exchange testified before the Interstate Commerce Commission that it was impossible to sell lumber on contract.[6] This meant that building operations in many states were interfered with. Some building concerns of much stability were on the verge of bankruptcy.[7] All lines of business were of course much affected by the transportation furnished the coal mines; many mines were closed or operated but part time.[8] In 1906, in some places in the Northwest, schools and public utilities were without coal.[9] In some instances, railway fuel was used by cities;[1] in others, business establishments were closed and coal was given out in sacks to keep people from freezing.[2] Action on the part of the Interstate Commerce Commission was necessary in securing coöperation of railway officials in charge of traffic to give priority to rush coal shipments into some sections.[3] Coal cars were put even into passenger trains.[4] All this evidence reads much like that which has been in the daily press since the United States entered the war; but it must not be forgotten that the situation here described existed more than ten years ago without any abnormal war traffic to move.

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[1] St. Louis Hearings, pp. 116, 147; Kansas City Hearings, pp. 162, 189.

[2] See Senate Doc. 311, 60th Congress, 1st Session (1908), pp. 81, 88.

[3] Copy of such a contract (the Atchison, Topeka & Santa Fe Railway Co.) given in ibid., pp. 81–87. Some railroads went to much expense in unloading dead carload freight in order to keep their own cars on their own lines. Kansas City Hearings, p. 226. Naturally all this unloading for shipment to destination in other cars meant terminal congestion.

[4] St. Louis Hearings, pp. 18–19, 20, 23.

[5] Ibid., pp. 62–64, 137; Chicago Hearings, pp. 387, 424–427; Minneapolis Hearings, pp. 196–197.

[6] St. Louis Hearings, p. 62.

[7] 12 I. C. C. R. 569.

[8] 12 I. C. C. R. 568; Minneapolis Hearings, pp. 27, 66, 67, 69, 73, 74, 76, 86–87, 171; Chicago Hearings, pp. 309, 431; St. Louis Hearings, pp. 20, 25, 37; Kansas City Hearings, pp. 143, 195, 199, 200, 203.

[9] Minneapolis Hearings, p. 235.

In attempting to determine the causes for the above described inadequacy of transportation facilities in time of peace, attention may be given to the growth of traffic in comparison with the expansion of the railway plant, to the significance of large areas producing raw materials, to the responsibility of the railroads themselves, to the shippers' contribution to the situation, and finally to the program of government regulation.

According to statistics of the Interstate Commerce Commission, the ton mileage of the railroads increased about 118 per cent in the eleven-year period, 1895–1905 inclusive; while during the same period, the increase in railway mileage was about 21 per cent.[5] Three-fourths of this new mileage was in new sections that merely added to the congestion of the old.[6] James J. Hill told the Interstate Commerce Commission in 1906 that the commerce of the country and its growth was against a stone wall so high that it was not possible to see the top of it. He maintained that it was as impossible to bore an inch hole with a half-inch auger as it was to drive the business then being offered through the facilities which the railroads had.[1] Hill contended that conditions were growing worse; that there should be an addition to the railway mileage that then existed of from 25 to 33 per cent; that in addition, there would need to be much spent for new equipment, reduction of grades, double tracking, and terminal facilities. He believed it would be necessary to spend at least $5,500,000,000 yearly for a period of five years to make the railroads equal to the task then before them.[2] That the railroads had more business than they could handle in 1906 is clear from the testimony of many railway officers in the investigation of the Interstate Commerce Commission at that time. The general manager of the Northern Pacific Railroad testified that in some instances they did not place cars in competitive territory, in the hope that the other railroads would take the business.[3] The third vice-president of the Rock Island Railroad stated that his road followed the practice of trying to get customers to ship over other roads.[4] The general superintendent of freight transportation of the Pennsylvania lines west of Pittsburgh stated that their agents were instructed to try to persuade shippers to ship by other lines.[5]

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[1] Minneapolis Hearings, pp. 93–94, 128–129.

[2] Ibid., p. 171; Chicago Hearings, p. 309.

[3] Minneapolis Hearings, p. 92.

[4] Ibid., p. 284, testimony of Howard Elliott. The experience in this section at this time contributed toward the priority given in 1917 to coal destined for points beyond the Lakes in order that an ample supply might be transported before the close of navigation.

[5] Statistics of Railways in U. S., 1905, pp. 12, 67–69.

[6] Minneapolis Hearings, p. 295, testimony of J. J. Hill.

In the eleven-year period 1906–16 inclusive, the ton mileage increased nearly 60 per cent, while mileage increased about 16 per cent.[1] In other words, it appears that the transportation plant as a whole has not kept pace with the growth of traffic. In the annual report of the Interstate Commerce Commission for 1916, it is claimed that whenever business generally is good and times are prosperous, there is widespread difficulty and complaint due to inability to secure satisfactory transportation services from the railroads. The Commission points out that this difficulty recurs during the fall and winter months of practically every year with regard to transportation of coal, and usually also in connection with the movement of grain when the crops are good.[2]

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[1] Minneapolis Hearings, loc. cit., Howard Elliott made similar statements. Ibid., pp. 281–291. See also St. Louis Hearings, pp. 93–94; Kansas City Hearings, p. 215.

[2] Minneapolis Hearings, p. 296; St. Louis Hearings, p. 15; Kansas City Hearings, p. 185. See statement of Manager of Transportation Dept., Chicago Board of Trade, Railway Age, vol. 44, pp. 614–619.

[3] Minneapolis Hearings, p. 221.

[4] Chicago Hearings, p. 317.

[5] St. Louis Hearings, p. 91.

Inefficient and unsatisfactory railway service, however, may result from the improper use of facilities as well as from their insufficient supply, and it is this phase of the problem with which this article is concerned. Adequacy of the railway plant as a whole would not necessarily guarantee satisfactory service to different classes of shippers or to the different sections of the United States. Evidence has already been given (Maps I and II) which indicates that some sections of the country suffer very much more than others from a shortage of equipment. A fundamental reason for this is that this large country is roughly divided into areas which produce raw materials, and into sections which engage in various lines of manufacture. Areas producing bulky raw materials must have many cars to serve their needs for outbound loading; furthermore, the movement of cars under load into such areas is light, and therefore such areas of " one-way " shippers find it difficult to secure all the equipment they need. To this perfectly natural force, which tends to bring about a very unequal distribution of railway equipment and great inequalities in railway service, must be added several others. The railroads, the shippers, and regulating bodies are all responsible to some extent for this condition of affairs.

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[1] Annual Report I. C. C., 1916; table facing p. 74; Statistics of Railways in United States, 1906, p. 16; and Abstract Statistics of Steam Railways in United States (I. C. C. R.), 1916, pp. 2, 6.

[2] Annual Report I. C. C., 1916, pp. 67–68.

The general public has generally held the carriers responsible for inadequate transportation facilities. There is a widespread belief that railroads are accountable for the trouble because of a shortage of cars. It is a fact that certain railroads do not have adequate rolling stock.[1] Indeed some small railroads have no cars whatever, and they rely wholly upon their connections for equipment.[2] In one state in 1907, railroads having 10 per cent of the total mileage relied entirely upon other lines for their equipment.[3] In the late eighties, railroads sometimes made contracts to " furnish cars " used in traffic with other roads, the assumption being that the roads making the contract were to furnish their own cars; if they did not, they were to assume the mileage on any foreign cars used in this joint business.[4] Evidence indicates that railroads assumed, but in many instances did not pay, the mileage to the road that owned the cars.[5] In view of conditions in 1906 and 1907, it was natural that the American Railway Association, at its meeting in October, 1907, should have adopted a resolution that it was " a basic principle that ultimately every road should furnish sufficient equipment to take care of its local traffic moving within the confines of its own road, and also its proportion of all equipment required for through traffic." [6] The Interstate Commerce Commission through Commissioner Cooley early laid down the principle that it was the duty of the carrier to provide itself with rolling stock for the normal business which it proposed to carry.[1] It was contended in the Chicago Hearings [2] in 1906, that the Interstate Commerce Commission should be given power to compel a railroad to buy its proper share of equipment. One line ought not find it necessary to buy so much equipment that it would not have room on its own rails to store its own cars during periods of slack business.[3] But such inequalities between different systems would not necessarily indicate the insufficiency of the total supply.

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[1] 1 I. C. C. R. 775; 12 I. C. C. R. 573; St. Louis Hearings, pp. 3, 4, 119, 120; Kansas City Hearings, pp. 184, 185.

[2] Proceedings National Association Railway Commissioners, 1912, pp. 243–244.

[3] 12 I. C. C. R. 574.

[4] Proceedings American Railway Association, vol. i, p. 183.

[5] Ibid., loc. cit.

[6] Ibid., vol. v, p. 37.

Examination of Table I shows that the supply of rolling stock in this country has been ample except in certain seasons of certain years. From 1907 to 1916 it appears that there were five years in which there was no net shortage at all, and two other years in which the shortage was only nominal. In fact, only three years in this period show any marked lack of cars. According to facts presented by the American Railway Association, there were 423,183,191 idle car days on the railroads of the United States from 1906 to 1916; and counting the average earnings of a car as $2.50 a day, this would mean $1,057,957,977.50 as the loss to the railroads on account of dull times and hence idle cars during the ten years. There were 31,543,316 car shortage days in the ten years and, on the same basis, the loss to the railroads because they could not furnish cars was $78,858,290.[4] If these figures are to be relied upon, it is clear that it is not to the interest of the railways as a whole to increase materially the supply of cars. It is a fact, however, that there were actually fewer cars in service in the United States in 1915 than in 1914, and fewer in 1916 than in 1915;[1] and this lack of equipment combined with an enormous war traffic has of course caused much embarrassment. In 1914 and 1915, the railroads did not buy the usual number of cars. In 1916, they were unable to secure them. Much railway equipment has been made in the United States for our allies, and some car manufacturers ceased to engage in the prosaic business of manufacturing railway equipment because of better opportunities in other lines.

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[1] 1 I. C. C. R. 722.

[2] P. 360.

[3] Commissioner Hall testified before the House Committee on Interstate Commerce in 1916 that instances had come to the attention of the Interstate Commerce Commission of roads that did not have room on their own rails for their own cars during periods of slack business, and were obliged to store them on the ground. Esch Hearings, p. 15.

[4] The American Railway Association Bulletin No. 6, February 6, 1917.

Without attempting to minimize the importance of a shortage of rolling stock, which at times causes much embarrassment, it must be pointed out that the problem is one which involves much more than a mere deficiency of equipment. As Commissioner Lane indicated more than ten years ago, the problem of car shortage is one which is connected with every factor of railroading — the construction, operation, maintenance and financing. He rightly maintained that the problem of transportation is so closely interwoven with the fabric of our commercial organization that one may not lightly say what are the multitudinous considerations which necessarily enter into so simple a question as the reason why a car is not at once forthcoming when ordered. As he pointed out, the inability of the shipper to secure a car may be but a symptom of a deep seated and organic trouble.[2] Examination of Table I indicates that much attention which has been given to the subject of car supply might better have been given to the conditions which affect car operation.[3] In fact, at times when there has been most embarrassment because of the insufficiency of transportation facilities, it has resulted more from congestion in terminals and on side tracks than from car shortage.[1] At such times more cars would have made conditions worse instead of better, for additional equipment would merely have added to the congestion.

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[1] The numbers were as follows: 1914, 2,325,647; 1915, 2,318,305; 1916, 2,298,263; Annual Report I. C. C., 1916, table facing p. 74; I. C. C. Abstract of Statistics of Steam Railways in the United States, 1916, p. 3.

[2] 12 I. C. C. R. 574–575.

[3] See statement of J. J. Hill, Minneapolis Hearings, p. 298; Proceedings National Association Railway Commissioners, 1912, pp. 246–247.

The problem of car operation has been increasing in significance as our commerce has become more interstate in character, and as the relation of the railways to each other in the handling of traffic has become more complex. When our railways were first built, the question of exchange and interchange of railway equipment was not an important one. The lines were then short and disconnected. They served a local community only, and as a rule equipment did not go beyond the termini of the home road. Indeed, railroads were built on different gauge in order to keep cars on the home track, and some states framed charters designed to prevent through routes so as to keep the business within their borders.[2] In view of these primitive conceptions and conditions, it is not surprising to learn that an early decision of the Interstate Commerce Commission upheld a railroad which refused to furnish cars for points beyond its own line. This decision was based upon the theory that local traffic enjoyed rights superior to through traffic. The Commission observed in this case that " if this company (Pittsburgh and Lake Erie Railroad) should send its cars . . . to Buffalo, . . . this would have stripped this railroad of its equipment, leaving the other business along its line to go to ruin. . . ." The Commission contended further that the railroad's "first and most paramount legal duty to the shipping public was to make its entire freight equipment do its utmost in serving the shippers along its own line. . . ."[1] With the growth of the country, it has been necessary to develop standard gauge[2] and to consider railroad equipment something like a negotiable instrument. It is now imperative that cars be sent freely from one system to another, hence the vital importance of equitable car service rules and their honest observance.

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[1] See statement of Commissioner Clark before the Chicago Traffic Club, Railway Age, November 1, 1907, pp. 614–616; statement of J. J. Hill, Minneapolis Hearings, p. 295; see also ibid., pp. 311, 318; Proceedings National Association Railway Commissioners, 1912, pp. 246–247; 12 I. C. C. R. 564; Annual Report I. C. C., 1916, p. 68; address of Howard Elliott, Proceedings Railway Development Association, November, 1915, pp. 25–32; St. Louis Hearings, p. 15; Kansas City Hearings, p. 216. Space does not permit of a discussion of the vital problems of railway service in terminals, and of the coördination of rail and water carriers. These subjects must be left for future consideration.

[2] McPherson, Railroad Freight Rates, pp. 161–162.

When carriers began to interchange equipment in through traffic, they paid for it on a mileage basis. This led to great abuses. The method of computing mileage often made it impossible for a railroad to get any pay for the use of its cars in the local service of another railroad, and such local usage was widely practiced.[3] There was much dishonesty in making reports, and foreign equipment was much used for storage purposes under the mileage plan. Finally in 1902, this basis gave way to the per diem method of payment.[4] As soon as this system went into effect, the committee on car service of the American Railway Association was able to report improvement in the return of cars to their owners, which resulted in an increase in the available car supply.[5] The

[1] Riddle, Dean & Co. v. Pittsburgh & Lake Erie R. R. Co.; 1 I. C. C. R. 688 (693).

[2] Altho the standardization of the gauge of American railroads was carried out principally between 1860 and 1870, the standing resolution of the American Railway Association that the standard gauge should be 4 ft. 8½ in. was not adopted until April 7, 1897. Proceedings, vol. vii, p. 1220.

[3] Ibid., vol. i, p. 183.

[4] Ibid., loc. cit.; for summary of objections against the mileage basis, see ibid., vol. ii, p. 748; history of per diem from its proposal, April 25, 1900, to its final adoption is given in ibid., vol. iii, pp. 160–168, 198–215, 251–263, 279, 280, 292, 410–415, 434, 435, 552–595, 1019–1024.

[5] Ibid., vol. iii, p. 1039.

per diem was twenty cents per day in the beginning, but it has been modified from time to time in an attempt to make it to the interest of carriers to return equipment promptly. But even increased per diem charges do not return cars when there is a great demand for them and when it is profitable to use foreign cars in local service.

Statistics of car location (Maps I and II) show that cars accumulate in certain sections of the country in certain months of the year. As has been suggested, this is the result in part of traffic taking its normal channels, but it is also due to the fact that car service rules are honored more in the breach than in the observance when there is much demand for equipment. The railroads frankly confessed this fact before Commissioner McChord in the Hearing at Louisville, Kentucky, in November, 1916.[1] The record in this hearing shows that the Car Service Commission of the American Railway Association found over 40,000 violations of car service rules in the month of June, 1916, and that the evidence was so overwhelming that further inspection was abandoned.[2] Such a practice on the part of the railroads places a great burden on those sections of the country which, as has been indicated, produce mainly raw materials, the sections which normally load much freight out but receive little inbound freight. Whenever there is a heavy demand for cars, such sections suffer much from car shortage, for they cannot provide themselves with empties like sections that are receiving a constant stream of cars under load. It is evident that the " one-way " shippers are dependent upon a fair observance of car service rules for a supply of equipment.

The effect upon the railways in such regions is equally apparent. Railway systems in the West suffer severely from lack of equipment, regardless of their original supply. Their cars, which are loaded and destined to the Atlantic ports, are often used for local business there or are loaded and sent back to some point, say in Trunk Line or Central Freight Association territory, and unloaded only to be reloaded and sent again to the Atlantic coast. In 1906, James J. Hill sent a representative of the Great Northern Railroad to the East to discover where Great Northern equipment was being detained. The representative found that their equipment was being used to haul ice from Maine to Boston and that these cars had " been in that service for months and months."[1] Thus, through the disregard of car service rules, the cars of railway systems west of the Mississippi River shuttle back and forth throughout the eastern portion of the United States. Coal mines as well as producing areas belong to the unfortunate group of one-way shippers. Consequently railroads which serve coal mines often find it difficult to secure the return of coal cars that go beyond their own lines. A typical case of this sort came before the Interstate Commerce Commission in 1910. The superintendent of transportation of the Illinois Central Railroad had attempted to secure an agreement from a number of connecting roads that they would observe car service rules and return coal equipment promptly. The reply of the Missouri Pacific is typical.

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[1] Car Supply Investigation, House Doc. 2116, 64th Congress, 2nd Session, p. 8.

[2] See testimony of Commissioner Hall, Esch Hearings, pp. 36–37; also Traffic World, November 11, 1916, p. 956.

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[1] Testimony of Hill, before the Interstate Commerce Commission, Minneapolis Hearings, p. 300. Little wonder that Hill should say: " The car thief is the worst kind of a thief. Thieves are all bad but I think the car thief is the worst." Ibid., loc. cit. See also discussion upon the adoption of the per diem method of payment before the American Railway Association in Proceedings, American Railway Association, vol. iii. p. 565.

A little road in Iowa about 100 miles long said to have the largest amount of cars per mile of any railroad in the United States has had much trouble in keeping equipment adequate to their needs because they ship out clay and gypsum products that go to distant points, and the number of cars that come over their system under load does not correspond with the number they ship out, hence in a time like the last two years they have much trouble from car shortage. (See a statement of E. D. Chassel of the Railroad Commission of the state of Iowa, Hearings before House Committee on Interstate and Foreign Commerce, 64th Congress, 2nd Session, on H. R. 19546, etc., p. 58.)

That railroad indicated that it would be glad to observe the car service rules, unless they were disregarded by other lines. In that event it would be compelled to confiscate whatever cars it found upon its lines. The Illinois Central finally issued an order to the effect that none of its cars could be loaded with coal destined for points beyond its own lines. Whereupon the Missouri and Illinois Coal Company, which was thereby prevented from marketing coal on its contracts in St. Louis, appealed to the Interstate Commerce Commission for relief. Reversing the earlier decision [1] it was held that the action of the Illinois Central was illegal; but the Commission made no order in the case, indicating that it was the first duty of the carriers to work out equitable car service rules among themselves.[2] Clearly the refusal of railroads to observe their car service rules has meant inequity in car distribution not only among different shippers and different sections of the country but also among the railroads themselves. Such practice on the part of the carriers gives little incentive to any individual line to increase its car supply. Railways are, however, not altogether responsible through non-observance of car service rules for the fact that railway equipment becomes congested in some sections and lacking in others. Both shippers and regulating bodies share this responsibility.

The responsibility of shippers for the inability of carriers to render adequate service is greater than has commonly been recognized. Among the practices of shippers which contribute to the inadequacy of transportation facilities may be mentioned the detention of equipment longer than is necessary to unload it, the use of cars for storage purposes, the abuse of the reconsignment privilege and finally by continuing trade customs that should have changed *pari passu* with enlarged capacity of railway equipment. These practices have meant an inefficient use of equipment. Bad habits of American shippers have been developed to a great extent by competition between carriers. For some years American railroads were built out into territory where nobody lived, and from that point on out to where nobody cared to go.[1] Because of the excess of transportation facilities it was natural that competition between carriers should have brought about very liberal use of railway equipment by shippers. Some railroads had ample warehouse or storage room which they gave free to shippers in order to get their business. Others that did not have storage room offered their cars or as was often the case the cars of other railroads.[2] As late as 1887 when the board of directors of the New York and New England Railroad reluctantly permitted the vice-president and general manager of that road to levy a demurrage charge on shippers for detention of equipment, the competing lines with the exception of the Boston and Albany began soliciting New England patrons with promises of unlimited car storage.[3] Altho earlier attempts [4] than that of the New York and New England Railroad were made to levy a demurrage charge for detention of equipment by shippers they do not appear to have been taken seriously,[5] especially so far as it affected big shippers [6] or competitive points.[7] In fact any one railroad found it very difficult to insist upon payment of demurrage without a loss of business, and car service associations were finally formed to collect[1] for all railroads. Even then shippers resisted payment of these charges and carried their cases to the Interstate Commerce Commission but without success.[2]

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[1] See p. 150, note 1, supra.

[2] 22 I. C. C. R. 39 (41).

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[1] See an article by Charles Francis Adams, North American Review, April, 1875.

[2] Chicago Hearings, p. 337; see St. Louis Hearings, p. 140; Proceedings National Association Railway Commissioners, 1909, p. 214, and 1914, pp. 41–42.

[3] Railway Age, February 8, 1907, p. 171.

[4] Ibid., loc. cit.; also Railroad Age Gazette, October 30, 1908, pp. 1234–1236.

[5] Proceedings National Association Railway Commissioners, 1909, pp. 236–237, 240.

[6] Ibid., p. 221.

[7] 18 I. C. C. R. 38; 25 I. C. C. R. 216. Proceedings American Railway Association, vol. i, p. 173.

The extent to which shippers use railway equipment for storage purposes is difficult to measure. Reporting upon evidence presented in the investigation of the Interstate Commerce Commission in 1906, Commissioner Harlan pointed out that both railroad men and shippers admitted that cars were constantly used by shippers as warehouses, and that the time allowed to them for loading and unloading was in excess of real necessity.[3] Naturally through liberal treatment of shippers on the part of railways in the use of railway equipment, habits were developed of relying upon the railway to furnish much of the " business plant." The very rapid development of our commercial centers has contributed not a little to the insistent demand on the part of the shipping public for a continuation of early privileges in the use of the railway equipment in connection with their business. Inasmuch as land has advanced in value very rapidly in our cities, it has been cheaper to rely upon the carriers for adequate storage and track space than to provide it otherwise.[1] The charge for the use of railway equipment has not advanced in the same ratio that the value of real estate has risen; indeed the charge for detention of railway equipment had remained almost stationary until recently advanced by the Director General of Railroads. Even those business concerns, which a generation ago had sufficient storage or track space, have found it economical to use this space for enlarging their capacity, leaving the burden of their enlarged capacity upon the carriers.[2] This applies to the shipping in of large orders of raw materials bought under favorable market conditions as well as to the daily output of a concern. In a case in the former class which came before the Interstate Commerce Commission as late as 1912, the shipper resisted the payment of demurrage, but the Interstate Commerce Commission very properly held that the demurrage should be paid.[3] When the railroads applied to the Interstate Commerce Commission a little over a year ago for permission to reduce free time on domestic freight held in New Jersey for final delivery to New York, Brooklyn and elsewhere, and for permission to increase the charge for storage for both export and domestic delivery at New York harbor points, neither measure was for the purpose of increasing revenue but to relieve freight congestion.[4]

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[1] List of demurrage bureaus, see Bull. 191, U. S. Dept. of Agriculture, March, 1915, p. 24.

[2] 11 I. C. C. R. 166; see also 18 I. C. C. R. 234.

[3] 12 I. C. C. R. 579. Commissioner Lane said that the contention that car shortage had been caused by the use of cars as warehouses was without support so far as the testimony given at Minneapolis and Chicago indicated. He maintained that the demurrage accounts of the railroads showed that to a very limited extent did " consignees avail themselves of the right to hold cars as warehouses and pay demurrage thereon." 12 I. C. C. R. 571. While this might be true as applies to agricultural areas to apply it generally would appear to overlook the fact that even in more recent years demurrage accounts might not be a true measure of the extent to which shippers were holding cars. J. A. Shinn writing in the Railway Age (February 8, 1907, pp. 171–172) maintained that in 1893 it was notorious that many big firms owed tens of thousands of dollars which was not paid and which no attempt was made to collect. Even as late as 1909, the Committee on Car Service and Demurrage of the National Association of Railway Commissioners reported that the collection of demurrage from large industries was still somewhat of an anomaly; that in some sections of the country the railroads were carrying on their books uncollected demurrage of hundreds of thousands of dollars; that the failure to enforce demurrage rules had been " particularly notorious." Proceedings National Association Railway Commissioners, 1909, pp. 221, 240. If these statements are to be relied upon it is fair to assume that an important portion of demurrage was never even placed upon the books. See also American Railway Association (Bulletin) February 6 and May 9, 1917.

In the case of some concerns which have adequate storage, their facilities for unloading may be so primitive as to occasion much delay to railway equipment.

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[1] See 14 I. C. C. R. 170; 16 I. C. C. R. 116; Proceedings National Association Railway Commissioners, 1913, pp. 367–368.

[2] See Chicago Hearings, p. 358.

[3] 25 I. C. C. R. 399.

[4] Newlands Hearings, p. 900.

The evidence reflected in Map II appears to reveal that the economies sought by the railroads in building self-dumping coal equipment are to a large degree offset by the fact that many consignees do not have proper facilities for unloading such cars. Investigation was made by a railroad company that found its coal cars were being unduly detained; and it was told by dealers in Kansas, Oklahoma and other states that it was cheaper for them to hold the cars and pay five or six days demurrage than it was to unload the coal in bins and reload it again in wagons.[1]

It is clear that railway competition, together with early liberal precedents, makes it difficult for railways to put wholesome pressure upon shippers to provide their own storage.[2] For more than twenty-five years the Lehigh Valley Railroad Company provided in its tariffs that cars containing anthracite coal forwarded to Perth Amboy for transshipment by boat and held at that port would not be subject to demurrage; it was further provided that free storage in bins would be given for a period of two years to such shippers. But the Interstate Commerce Commission upheld the Lehigh Valley in 1915 in its refusal to continue to furnish free storage bins, or to permit cars to be detained without demurrage charges.[3] The Interstate Commerce Commission has held that the carrier has a right to unload car load freight at the end of free time in order to secure its equipment,[4] but this in practice is often very difficult for the carrier to do in congested terminals, where the need is greatest for releasing equipment.

Abuse of the reconsignment privilege has become important in recent years through a substantial increase

[1] Kansas City Hearings, p. 259.

[2] 41 I. C. C. R. 506; 43 I. C. C. R. 472.

[3] 36 I. C. C. R. 140; see also 37 I. C. C. R. 441.

[4] 18 I. C. C. R. 234.

in the number of commission men and brokers,[1] who have relied almost entirely for their " business plant " upon the railway. But such a practice is by no means a new one. The manager of the Railway Clearing House Association of Boston observed in 1888 as follows: " When one sees with what coolness a man hires desk room in an office and starts out in the grain, lumber or coal business without a storehouse of any kind, no lumber or coal sheds or a square foot of yard room anywhere, trusting entirely to the railway companies to substitute their cars for storehouses and sheds, *charging him nothing*, one is lost in amazement."[2]

Reconsignment may be necessary in some cases because of the uncertain or slow movement of trains.[3] This is especially true of fruits, vegetables, or other perishable commodities. Shippers may resort to reconsignment to keep their list of customers from their competitors,[4] or to escape demurrage charges.[5] Finally, it is considered necessary because of certain trade conditions, which in many instances have been brought about through the use and abuse of reconsignment itself. In investigations made in 1917 at New York, in regard to food speculation, it was learned that car loads of perishable foodstuffs were sometimes sold a dozen times and nearly every time they were sold a reconsignment was made.[1] The handling of grain and other commodities through a third party or commission house has created laws providing for inspection either by state or regularly authorized boards of trade, and the tariff governing demurrage has conceded the right and allowed free time for inspection. Instances have been cited of grain which moved through fifteen different markets, being subject to official inspection at each of the markets before it was ultimately unloaded.[2] It was contended before the National Association of Railway Commissioners in 1913, that 90 per cent of the grain tonnage was handled through so-called commission firms that had very little if any storage room of their own.[3]

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[1] A car service manager testified before the Interstate Commerce Commission in 1906 that middlemen had increased from two to five times but that they had not increased their facilities. (St. Louis Hearings, p. 141.) Both the mushroom expansion of many business concerns as a result of the war, and also the indefiniteness of the future, have caused many establishments to depend entirely upon the railway plant for storage facilities. Freight equipment has been used as coal bins from which the daily supply has been taken. The statement was made before the Esch Committee that owing to lack of storage facilities Detroit has but a three days' coal supply on hand. (Esch Hearings, p. 27.) Much evidence along this line was given in hearings before the Public Utilities Commission of Ohio in February, 1917.

[2] Proceedings American Railway Association, vol. i, p. 184. See also 12 I. C. C. R. 571. Proceedings National Association Railway Commissioners, 1913, pp. 362–363; Railway Age, December 28, 1906, p. 802.

[3] Kansas City Hearings, p. 268. Chicago Hearings, p. 433.

[4] Kansas City Hearings, p. 256.

[5] See Proceedings National Association Railway Commissioners, 1914, p. 42.

Like other privileges enjoyed by shippers, reconsignment had its origin in the days of fierce railway competition when traffic was not so plentiful as it has been in recent years.[4] Furthermore, railway competition has extended the time for reconsignment in many cases beyond what is necessary.[5] Shippers unfortunately do not fully appreciate that with a change in conditions insistence upon what they have come to consider as a right is after all the abuse of a privilege which results in injury to themselves. That the Interstate Commerce Commission has always looked upon reconsignment as a privilege, not as a right, is clear,[1] and this body has not been slow to condemn the abuse of this privilege. The Commission has maintained that it is worse in its effects than rebates.[2] The president of an important belt line railway testified before the Interstate Commerce Commission that reconsignment is the largest factor in terminal delays.[3] Testimony given in the Louisville Hearings in November, 1916, was to the effect that car shortage on the Illinois Central Railroad would have been reduced one-half if cars held for reconsignment had been released.[4] Beyond doubt a considerable amount of traffic which blocks sidings and congests terminals should not require the reconsignment privilege; it is manifestly unfair that a consignee who is able to receive his freight promptly should be prevented from doing so because traffic held for reconsignment congests yards, sidings, and terminals. Just as the disregard of car service rules among carriers gives little incentive to any one road to provide ample facilities, so does disregard of car service rules between railroads and shippers leave little incentive to a shipper to provide adequate facilities for handling his freight; it even puts a premium on the " shipping-to-order " practice.

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[1] A car load of potatoes was sold to a New York jobber and by him sold to a Chicago jobber, and the car reconsigned to Chicago: the Chicago jobber sold it to a Cincinnati dealer and the car was reconsigned to Cincinnati: the Cincinnati dealer sold it to a Cleveland dealer and the car was reconsigned to Cleveland, and so the thing went on through half a dozen more transactions covering a period of more than thirty days, meantime the car itself was standing in the yards in one of the upstate cities of New York. Railway Age, August 31, 1917, p. 370.

[2] National Association Railway Commissioners, 1913, pp. 361–362; see also Esch Hearings, p. 11; St. Louis Hearings, pp. 114, 123. It has been contended that much terminal delay could be eliminated by providing as far as possible for inspection of grain before shipment. Kansas City Hearings, p. 265.

[3] Proceedings National Association Railway Commissioners, 1913, p. 361.

[4] Railway Age, October 5, 1906, p. 415.

[5] Proceedings National Association Railway Commissioners, 1909, pp. 220–221; 12 I. C. C. R. 571.

Trade customs relative to commercial units have meant an inefficient use of railway equipment. Orders have been given for the same amounts that were customary when the capacity of railway equipment was much less than it is now. Within a ten-year period the number of freight cars increased 37 per cent while the load carrying capacity increased 60 per cent. Statistics of the Interstate Commerce Commission indicate that this increased capacity has not been utilized.[1] In June, 1917, the Railroads' War Board pointed out that the average car load was but 15.5 tons or only 42 per cent of the average capacity of cars.[2] The excellent records of maximum loading since that time show what might be possible even without the spur of patriotism.[3] But it would appear that as long as shippers continue the practices which have just been described it will be impossible to determine with any degree of certainty the need for transportation facilities.

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[1] 16 I. C. C. R. 387.

[2] Railway Age, February 8, 1907, p. 171.

[3] Chicago Hearings, pp. 410–411; St. Louis Hearings, pp. 122–125; Traffic World, November 11, 1916, pp. 962–966.

[4] Ibid., November 18, 1916, p. 1006.

Those who represent the interests of the carriers have been as ready to contend that government regulation is responsible for inadequate transportation facilities as the public has been to lay the responsibility upon the railroads. It has been claimed that the return to the railways has not been sufficient to enable them to furnish the facilities which are needed.[4] The Interstate Commerce Commission and the state commissions have hesitated to grant increases in railway rates probably because they have feared that an increase in railway income would induce an increase in railway capitalization; and that increased capitalization in turn would be presented as justification for another increase in rates. The vicious circle ought to be broken by increased knowledge of the value of the railway plant combined with supervision over the issue of railway securities. The public cannot afford to pay less for transportation than it costs to produce it. But this discussion is concerned with the efficient and maximum use of facilities, once they are provided. Indeed such use even determines the supply of facilities which will be needed.

[1] Table facing p. 74. Ann. Rept. I. C. C., 1916.

[2] Railroads' War Board, Official Public Bulletin No. 7, June 26, 1917.

[3] Much valuable information in American Railway Association Bulletins.

[4] This has been emphasized in the program of the railroads as presented in the Newlands Hearings. For statements of A. P. Thom, see pp. 213, 214, 218; Judge Lovett, pp. 682–684; Julius Kruttschnitt, pp. 892, 866–968, 972–973.

federal regulation has doubtless interfered with the proper use of railway facilities. The prohibition of pooling by the act to regulate commerce and the application to the railroads of the theory embodied in the Sherman law has made it difficult to use the railway plant in an economical manner. The Panama Canal Act has not been conducive to economy and efficiency in the operation of rail and water systems. The right of the shipper to route his freight as he has wished has meant much economic waste in our transportation. But federal legislation, or as will appear presently the lack of it, is not the only hindrance to efficient and sufficient railway service. State laws also, which have regulated railway operation and service, have prevented an equitable and economical use of railway facilities.

Some states have attempted through legislation to give shippers within their borders an advantage over their competitors in other states. This can be done by low intrastate rates, but it may make such inroads on railway revenue that a carrier will have insufficient funds to provide adequate facilities. Judge Lovett testified before the Newlands Committee that the increase in rates given by the Interstate Commerce Commission at the beginning of the European War was practically offset in the state of Pennsylvania by reduction of the rates on coal to tidewater points.[1] Carriers may be prevented from financing their properties to advantage by state regulation of security issues.[2] Complaint was made before the Newlands Committee that the New York Central, which has only a total right of way in Illinois of about 140 miles, altho it operates 6034 miles of first track, was taxed $600,000 by that state as a condition precedent to its approval of an intended financing; also that Arizona in return for approval of an issue of securities asked that litigation concerning passenger fares be dropped and that a new station be built at Phoenix.[1] The Hadley Commission, in commenting upon state regulation of security issues, said they believed the time was near when the difficulties of the present system of dual control, and the conflict of state laws would become so manifest that further legislation would be imperative.[2]

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[1] Newlands Hearings, pp. 716–717.

[2] Ibid., pp. 76, 98, 109, 894, 927–928.

State industries may be favored by legislation regulating directly the service which carriers must furnish to shippers. A state that fixes low car load minima may benefit some of its industries but it will absorb more than its fair share of railway equipment. Likewise if one state gives much free time to shippers this means that equipment is detained and shippers in other states are deprived of its use. C. F. Staples, member of the Minnesota Railroad Commission, told the National Association of Railway Commissioners in 1909 that he could readily understand why no railroad in Minnesota would permit one of its cars loaded with flour to go down into the New England states, for there they permitted four days free time for unloading, which of course meant much delay to Minnesota farmers who were clamoring for cars.[3] It is evident, too, that anything which increases detention of equipment at the same time increases the aggregate supply which is necessary to move a given tonnage. The unsatisfactory character of regulation of demurrage by the separate states brought about the adoption of a uniform demurrage code by the National Association of Railway Commissioners in 1909 and the Interstate Commerce Commission approved this code the same year. The year following it was approved by the American Railway Association. According to a bulletin of the United States Department of Agriculture published in March, 1915, there were at that time twenty-four states that had adopted the uniform code for intrastate traffic, and in the other twenty-four altho there was a tendency to conform more nearly to the provisions of the uniform code, the exceptions thereto and the number of special provisions in the state codes were important.[1]

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[1] Newlands Hearings, p. 928, see also pp. 76–84.

[2] Rept. of the Railroad Securities Commission, House Doc. No. 256, 62nd Congress, 2nd Session, p. 8.

[3] Proceedings National Association Railway Commissioners, 1909, p. 277. See the statement of a member of the Minnesota Railroad Commission before a Senate Committee in 1917. Hearings, S. 636, May 3, 1917, p. 19.

Following the acute conditions in 1906 and 1907, about twenty states passed so-called reciprocal demurrage laws. Similar legislation was introduced into Congress,[2] and the Interstate Commerce Commission was asked to make a ruling governing reciprocal demurrage; but it held that it had no authority to make such a rule.[3] Such legislation requires railroads to supply shippers with cars on penalty of so much per day for each car not furnished. Some of the state laws were drawn in such a way that they were declared illegal, and fortunately the decisions of the courts brought little enforcement of the legislation in many other states, and in some the legislation has been repealed. Aside from the weakness of such a law, were it applied generally, to have it in some states and not in others, means interference with interstate commerce and an unequal distribution of equipment among states. It puts a premium upon the retention of a carriers' cars upon its own lines and hence under its own control, which in turn interferes with free exchange and interchange of equipment. In view of this fact it might not be worth while to furnish a shipper with cars that could not be sent beyond the termini of the originating road. The application of such a law means, therefore, that shippers would find their markets curtailed. In other words the application of such a law within the borders of a state means that shippers within that state, engaged in interstate commerce, would have difficulty in securing a fair share of railway equipment.[1]

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[1] Bulletin No. 191, U. S. Dept. of Agriculture.

[2] For a copy of a bill (S. 3644) and hearings on same, see Sen. Doc. No. 311, 60th Congress, 1st Session, pp. 1–134, and appendix of five tables.

[3] 12 I. C. C. R. 61.

Our early railway legislation prohibited discrimination on the part of the railways. It is equally important to eliminate discrimination which results from state regulation. Regulation by some states makes it difficult, in some cases impossible, for carriers to furnish equitable and adequate service. In the middle 70's when the Windom report was made to Congress there was a demand for low freight rates. That was natural in view of the economic conditions which obtained at that time. About ten years later the Cullom report brought discrimination in freight rates to the fore. And now within the last decade the growth of traffic beyond the capacity of the railway plant and the lack of proper control of railway service have brought the shipping public to a realization of the fact that adequate and non-discriminatory service is as important as low or non-discriminatory rates. This is reflected in the recent Esch and Pomerene Reports. Shippers appeared before the Interstate Commerce Commission in the Fifteen per cent rate case and expressed their willingness to see an advance in freight rates, in the hope that the railways would be able to render better service. From the foregoing analysis it would appear that something more is required than an increase in railway facilities. What is needed is a thorogoing control of railway service. This is necessary whether the railroads are restored to private operation, continued under some plan of government operation, or taken over by the government through government ownership.

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[1] Aside from the extent to which such legislation interferes with interstate commerce and the free exchange of railway equipment it is easy to see how it would lead to rebating if the one receives the penalty who is supposed to be damaged by the fact that equipment is not furnished.

If the railroads are to be restored to private operation our government regulation ought not compel the carriers to compete. Most students of transportation are agreed that there would be a distinct advantage in the repeal of our legislation which prevents pooling and combination among carriers, provided there be adequate supervision and control of such combinations. Those who argue for the railroads have contended that the repeal of such legislation would have made government operation of railroads unnecessary; that the breakdown was one of government regulation rather than of railroad administration.[1] If this be granted, it implies more than railroads will desire to accept. The character of railway service from about 1900 to the present time indicates that something more than mere *permission* to carriers to pool and form combinations is necessary. The repeal of the federal legislation referred to would not be sufficient. A railroad like any other business interest will combine with others when it is to its advantage to do so, but when a carrier occupies a strategic position in the use of terminal or other facilities, it is not probable that it will offer to share this monopoly advantage with other carriers. It may be to the interest of the public, therefore, not only to *permit* but to *compel* certain combinations among carriers in rendering service.[2] There is as much logic in compelling one carrier to permit the use of its facilities by another carrier as there is in compelling one utility to permit the use of its poles, conduits, or other facilities by another utility. In both cases the public receives consideration as an important third party to the contract. The theory in the decision of the Supreme Court in the St. Louis terminal case (1912) ought to be more generally applied.[1]

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[1] See editorials in Railway Age; also Regulation of Railways by S. O. Dunn (Appleton, 1918) reviewed by the writer in Journal of Political Economy, October, 1918.

[2] See a statement by Senator Cummins, Hearings, S. 636, May 3, 1917, p. 26; see also article by Professor Van Metre, New Republic, February 2, 1918, pp. 17–20.

In the regulation of railway service the Esch-Pomerene law, which became effective May 29, 1917, is but a beginning in the right direction. This legislation gives the Interstate Commerce Commission control over " car service " which term is defined by the law to include " the movement, distribution, exchange, interchange, and return " of cars used in the transportation of property by any carrier subject to the provisions of this act.[2] It is not easy to appreciate why such a law was not passed some years earlier.[3] System control of what must be inter-system equipment was too long tolerated. When the American Railway Association worked out car service rules in 1900 much emphasis was placed upon ownership as the proper criterion for the return of equipment.[4] The same theory is found in the order of the Interstate Commerce Commission of January, 1917.[1] But the theory is not a sound one. Its application means much unnecessary switching, delay to shippers in securing equipment, and an undue amount of empty car mileage. It is often difficult to get cars out of congested terminals, even disregarding ownership. In the winter of 1917 the Pennsylvania Railroad Company in some instances used a crane to lift cars bodily from one track to another rather than switch them through miles of congested yards.[2] When the Railroads' War Board was created, this body modified the plan of returning cars to owners; and for some classes of equipment they simply based the number each road was to receive upon the number it owned. The United States Railroad Administration has gone further in the same direction. The economies in pooling railway equipment are clear and if the railways are relinquished to private operation after the war a plan ought to be worked out which will continue the pooling of equipment and compel each carrier to furnish its fair proportion of the total supply. The formation of separate corporations which would own all equipment and lease it to the railroads would doubtless make a satisfactory organization through which government control could be made effective. Under some such plan railroads which have not provided themselves with sufficient equipment could be held to a strict accountability.

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[1] 224 U. S. 383.

[2] Statutes of the U. S., 65th Congress, 1st Session, 1917, chap. 23, pp. 101–102.

[3] See a review by the writer of the Special Report of the Interstate Commerce Commission for 1917 in American Economic Review, March, 1918.

[4] The rules were presented to the Association by its Car Service Committee in April with the suggestion that the expression of the Association or of members thereof be given and that the rules with suggestions be referred back to the committee for reconstruction and recommendation to the Association in its October meeting. Rule 3 as originally presented by the committee had provided that a car should not be delivered to a second railroad without consent of owner. The Association voted that " without consent of owner " be eliminated. The committee, however, did not take this as binding upon them, and reported the rule in October " with consent of owner " inserted. Discussion at some length followed concerning the recognition which should be given to ownership of a car and the extent to which the needs of traffic and the reduction of empty car mileage ought at times to control in the exchange and interchange of equipment. By a very close vote the Association decided that the interests of the car owner should be considered first. (See Proceedings, vol. iii, pp. 161 et seq. and 251 et seq. The rules as adopted October 24, 1900 are found in Proceedings, vol. iii, pp. 279–280.) In the October meeting in 1901 amendment was made to rule 3, to permit one railroad to deliver a foreign car either loaded or empty to another railroad for switching service but that its use was to be confined to switching service and its return made either to

But there is also the question of car service as it applies between railroads and shippers. This the Esch-Pomerene law does not cover except in an indirect

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the home road or the delivering road. A new section (No. 15) was added to define switching service. Again amendment was offered to permit loading a car in the opposite direction of the home road. Much warm discussion followed and it was urged that this would open the door to the use of foreign cars in local service, especially in a state like Connecticut which allowed 96 hours free time. The Association refused to adopt the amendment by a vote of 18 to 28. (Proceedings, vol. iii, p. 410 et seq.)

[1] 42 I. C. C. R. 657.

[2] Testimony of Commissioner Hall, Esch Hearings, p. 17.

manner. As has been indicated there is a wide variety of practice on the part of railways in their transactions with shippers, depending sometimes upon competition between carriers, sometimes upon state legislation. When, for example, increased demurrage has been applied by one carrier, or by the carriers in one state, altho it has produced desirable results in releasing equipment more promptly, it has been difficult to maintain the advanced scale because of the lower demurrage charges of other carriers, or because of a lower scale enforced in a bordering state. This has meant unfair distribution of equipment between shippers and between states. Julius Kruttschnitt has pointed out that the average detention of equipment for a given period by consignees in Oregon was about 50 per cent greater than in California where demurrage charges were much higher.[1] It would appear therefore, that the Esch-Pomerene law will be ineffective, even within the narrow scope of car service which it is designed to cover, as long as the separate states have laws and commission rulings which are wholly independent of and inconsistent with orders which federal authorities may care to make. The commerce of this country has become so complex that intrastate regulations cannot be enforced without great detriment to the shipping public generally; and to quote the Hadley Commission "It is a matter of direct concern to the federal government that the facilities for handling commerce between the states should not be impaired."[2]

Two obstacles will be encountered in attempting to take power over railway service from the states and give it to the federal government. One of these difficulties is legal, the other is political. Those opposed to an extension of federal control will contend that the federal government has no right to exercise control over intrastate commerce, but in view of the Shreveport doctrine which has been set forth in a number of cases it is not probable that the legal obstacle will be insurmountable. It will doubtless become increasingly clear to the courts that state regulation of intrastate commerce is impossible without at the same time affecting materially interstate commerce. According to testimony before the Newlands Committee about 85 per cent of all traffic is interstate.[1]

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[1] Newlands Hearings, p. 923.

[2] Rept. Railroad Securities Commission, p. 8.

The political difficulty in the way of the adoption of federal regulation of railway service is concerned with centralized *versus* local control. It will be contended that a centralized control cannot be sufficiently familiar with local conditions to be effective and efficient. There is much to be said for this objection. The United States Railroad Administration began with a Director General of Railroads. Gradually this administration has decentralized. Regions have been established, and these in turn have been further subdivided. It has apparently been realized that first hand information is important in conducting a railroad successfully. The predominance of the divisional type of organization found on American railroads is further evidence of the value of knowledge of local conditions. If there is to be control of railway service, first hand information concerning operating conditions would appear to be indispensable. How then can the disadvantage of state regulation be eliminated and yet retain the advantages which come from intimate association with actual conditions. Possibly this could be done by some plan which would permit the states to coöperate with the Interstate Commerce Commission but which would make the orders of the federal commission paramount. A better plan and one which has the support of an increasing number of students of transportation, would be to divide the country into a number of regions, something after the plan of the federal reserve banking system. These regions should in size and shape conform to traffic conditions. Such regions would, therefore, ignore state lines. It would then be logical to establish commissions for these regions. State commissions would not necessarily be discontinued but could give their time to public utilities within the state; possibly they could be of value in an advisory capacity to regional commissions. It may be contended that such a proposed decentralization of regulation indicates clearly that the present decentralized plan should not be disturbed. But the present plan of arbitrary state lines, in no sense coincides with traffic needs, and regulation of railway service by the various states seriously interferes with interstate traffic. The proposed plan would be sufficiently elastic to take advantage of the knowledge of local conditions and at the same time it would be possible to work out more equitable rules and regulations affecting railway service, among railroads themselves, and between railroads and shippers.

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[1] Hearings, p. 78, testimony of A. P. Thom.

If we assume that as a result of our experience during the war, government ownership should be adopted in the United States or that some form of government operation be continued, much of the conflict between the states and the federal government and between the states themselves would presumably be eliminated; but there would nevertheless be need of more control of railway service. It must not be forgotten that government ownership is not an aim. It is a means. Standards of service, therefore, and the machinery for carrying them out are as necessary under one system as under another, altho it is probably true that the absence of any necessity on the part of separate railroads to earn dividends might make enforcement of some of the regulations of railway service easier. If the railroads were owned by the government or operated by it as at present it would make little difference if Great Northern cars were used to haul ice from Maine to Boston, so far as the Great Northern itself would be concerned; but there would remain the inequalities of service between the shippers of the Northwest and those of New England.

A little consideration will show, too, that government ownership or government operation would not change the situation as it affects different classes of shippers within the same state. Reference is made here especially to the one-way and two-way shippers. What this means in actual practice may be shown by a concrete case which came before the Ohio Public Utilities Commission during its two-weeks hearings on coal shortage in February, 1917.[1] A Mr. Mobley, agent for the Baltimore and Ohio Railroad at Cincinnati, was asked to testify how many cars had been ordered by a long list of industrial concerns and what proportion of those ordered had been assigned to them. To take a typical case he replied that for the month of January, 1917, a certain steel and iron company ordered 89 cars and was furnished with 372. When asked to explain why more cars were supplied than were actually ordered, he pointed out that " furnished " in his records meant the number of loaded cars sent out by that mill over his line; that the discrepancy was due to the fact that that concern received large inbound shipments daily and that they were therefore able to provide themselves with most of the empties they needed and hence they did not need to ask the railroad for many in addition. The same result is seen in many of our agricultural states where there are many important grain shipping points that get very few cars in under load yet these are the very places that need large numbers of cars for outbound grain shipments. Other places in these states more populous and more diversified in their activities receive more inbound freight, and hence at times there is a very unequal distribution of railway equipment between different places in these states. Finally, the same situation presents itself on a still larger scale in the unequal distribution of equipment between different sections of the country. Government ownership would not change the essential characteristics of the one-way and two-way shippers or eliminate the fundamental features of our producing and consuming areas. But in any case justice and efficiency demand that control over railway service be taken out of the hands of the railroads, the shippers and the states and given to federal authorities, so organized that they can have a knowledge of local conditions and at the same time a view of transportation problems that extends beyond the boundaries of any state or traffic area. If it be contended that such control is placing railway management in the hands of government authorities who know nothing about it, the reply is that the railroads have confessed their inability to enforce their rules either against each other or against shippers; hence the public profits little by the fact that the railroads know what ought to be done. Railroad men and shippers of long experience should, however, be utilized by the government in its control of railway service. These men should be able to make equitable rulings which can be backed by the force of law, if necessary. With proper federal control shippers in our large and congested terminals might look forward to some plan of immediate delivery of less than car load shipments and more rigid rules for disposition of car load freight. Shippers in rural districts might realize that some storage room for grain plus improved highways would not only net them a better margin of profit but lessen the difficulties for themselves and the public generally which are annually experienced because of their attempt to market their crops within a comparatively short period of time. Railroads now admit that regulations which have been forced upon them have increased their revenue, protected them against each other, and benefited the public. It is time shippers learned the same lesson.

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[1] These hearings were not printed.

To summarize, there is a danger that the war will be accepted as the cause of our unsatisfactory railway service. Furthermore, the popular idea that the trouble is mainly due to car shortage is a narrow view of the question. Evidence indicates that traffic has outgrown the transportation plant; and that for more than a decade whenever business has been brisk, railway service has been inadequate and inefficient. Assuming that under a system of private ownership sufficient revenue will be allowed to carriers to enable them to provide adequate facilities or that under government ownership they would be provided by the government itself, there would remain the question of the proper use of these facilities to prevent unfairness in the one case among railway systems and under either plan to prevent injustice among different classes of shippers and among various sections of the country. In other words government operation or government ownership will not eliminate the defects of railway service which are due in some cases to the strategic advantages which some groups of shippers enjoy, or in other instances to the size of our country and its geographical division of labor. These fundamental characteristics being the same under private or government ownership, there is a need in any case of more comprehensive regulation of railway service.

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APPENDIX

TABLE I

Car Surpluses and Car Shortages, January 2, 1907 to October 15, 1914, and February 1, 1915, to December 1, 1917

Date	Total Surplus	Total Shortage	Net Surplus	Net Shortage
1907				
Jan. 2	29,855	115,348	....	85,493
Feb. 6	12,018	149,865	....	137,847
April 10	15,037	96,154	....	81,117
May 15	21,437	55,428	....	33,991
May 29	24,945	42,970	....	18,025
June 12	32,325	40,343	....	8,018
June 26	32,859	34,458	....	1,599
July 10	58,183	20,813	37,370	....
July 24	50,954	18,753	32,201	....
Aug. 7	46,650	18,814	27,836	....
Aug. 21	40,477	22,628	17,849	....
Sept. 4	21,639	31,679	....	10,040
Sept. 18	17,251	64,920	....	47,669
Oct. 2	6,193	64,469	....	58,276
Oct. 16	4,258	85,764	....	81,506
Oct. 30	3,946	90,757	....	86,811
Nov. 13	12,201	57,003	....	44,802
Nov. 27	40,348	17,964	22,384	....
Dec. 11	119,339	4,520	114,819	....
Dec. 24	209,310	724	208,586	....
1908				
Jan. 8	341,763	653	341,110	....
Jan. 22	342,580	738	341,842	....
Feb. 5	343,928	1,100	342,828	....
Feb. 19	322,513	1,249	321,264	....
Mar. 4	314,992	1,619	313,373	....
Mar. 18	297,042	1,007	296,035	....
April 1	307,510	528	306,982	....
April 15	375,770	146	375,624	....
April 29	413,605	267	413,338	....
May 13	404,534	159	404,375	....
May 27	381,904	125	381,779	....
June 10	349,994	427	349,567	....
June 24	313,298	451	312,847	....
July 8	303,560	518	303,042	....
July 22	308,680	509	308,171	....
Aug. 5	281,621	635	280,986	....
Aug. 19	253,003	854	252,149	....
Sept. 2	222,632	1,418	221,214	....
Sept. 16	173,587	2,935	170,652	....
Sept. 30	133,792	8,114	125,678	....
Oct. 14	115,036	13,199	101,837	....
Oct. 28	110,912	10,839	100,073	....
Nov. 11	121,174	11,659	109,515	....
Nov. 25	132,829	9,210	123,619	....
Dec. 9	175,643	1,679	173,964	....
Dec. 23	222,077	1,019	221,058	....

Date **1909**	Total Surplus	Total Shortage	Net Surplus	Net Shortage
Jan. 6	333,019	506	332,513	....
Jan. 20	311,664	358	311,306	....
Feb. 3	301,571	288	301,283	....
Feb. 17	301,441	470	300,971	....
Mar. 3	299,925	685	299,240	....
Mar. 17	291,418	550	290,868	....
Mar. 31	296,600	399	296,201	....
April 14	296,663	343	296,320	....
April 28	282,328	497	281,831	....
May 12	284,479	187	284,292	....
May 26	273,890	1,240	272,650	....
June 9	277,559	285	277,274	....
June 23	262,944	827	262,117	....
July 7	260,277	530	259,747	....
July 21	243,324	339	242,985	....
Aug. 4	207,173	1,626	205,547	....
Aug. 18	159,424	2,009	157,415	....
Sept. 1	110,576	3,899	106,677	....
Sept. 15	78,798	7,425	71,373	....
Sept. 29	53,388	14,582	38,806	....
Oct. 13	35,977	23,431	12,546	....
Oct. 27	30,896	36,636	....	5,740
Nov. 10	36,616	39,902	....	3,286
Nov. 24	39,528	27,496	12,032	....
Dec. 10	57,470	18,593	38,877	....
Dec. 22	58,354	24,054	34,300	....
1910				
Jan. 5	52,309	13,893	38,416	....
Jan. 19	51,836	24,992	26,844	....
Feb. 2	51,600	26,625	24,975	....
Feb. 16	45,513	31,204	14,309	....
Mar. 2	45,315	29,907	15,408	....
Mar. 16	44,529	27,187	17,342	....
Mar. 30	45,672	19,786	25,886	....
April 13	84,887	7,530	77,357	....
April 27	102,085	5,766	96,319	....
May 11	127,148	4,555	122,593	....
May 25	115,390	4,729	110,661	....
June 8	129,508	2,729	126,779	....
June 22	125,644	3,011	122,633	....
July 6	143,824	959	142,865	....
July 20	134,594	1,293	133,301	....
Aug. 3	105,564	2,783	102,781	....
Aug. 17	78,760	5,081	73,679	....
Aug. 31	60,022	9,293	50,729	....
Sept. 14	54,890	7,814	47,076	....
Sept. 28	42,469	17,941	24,528	....
Oct. 12	33,735	20,419	13,316	....
Oct. 26	29,131	21,896	7,235	....
Nov. 9	34,581	21,000	13,581	....
Nov. 23	43,060	14,673	28,393	....
Dec. 7	53,915	11,901	42,014	....
Dec. 21	62,118	10,705	51,413	....

Date	Total Surplus	Total Shortage	Net Surplus	Net Shortage
1911				
Jan. 4	110,432	3,508	106,924	....
Jan. 18	122,297	2,477	119,820	....
Feb. 1	156,355	1,287	155,068	....
Feb. 15	175,609	1,942	173,667	....
Mar. 1	192,673	2,831	189,842	....
Mar. 15	208,527	1,266	207,261	....
Mar. 29	196,217	1,330	194,887	....
April 12	187,219	1,166	186,053	....
April 26	189.524	2,518	187,006	....
May 10	188,847	1,569	187,278	....
May 24	168,233	835	167,398	....
June 7	169,006	2,204	166,802	....
June 21	165,934	2,764	163,170	....
July 5	165,508	1,887	163,621	....
July 19	150,433	1,361	149,072	....
Aug. 2	130,136	2,045	128,091	....
Aug 16	108,000	3,830	104,170	....
Aug. 30	88,866	4,325	84,541	....
Sept. 13	70,722	6,439	64,283	....
Sept. 27	58,382	8,344	50,038	....
Oct. 11	48,854	12,957	35,897	....
Oct. 25	39,306	18,774	20,532	....
Nov. 8	45,290	18,776	26,514	....
Nov. 22	43,059	19,949	23,110	....
Dec. 6	53,840	17,697	36,143	....
Dec. 20	88,646	11,832	76,814	....
1912				
Jan. 3	142,316	6,378	135,938	....
Jan. 17	102,479	12,194	90,285	....
Jan. 31	55,592	23,011	32,581	....
Feb. 14	50,886	36,928	13,958	....
Feb. 28	44,984	37,142	7,842	....
Mar. 13	46,028	42,985	3,043	....
Mar. 27	52,682	33,974	18,708	....
April 11	94,943	15,554	79,389	....
April 25	151,186	12,305	138,881	....
May 9	136,776	6,678	130,098	....
May 23	123,683	7,482	116,201	....
June 6	89,208	2,822	86,386	....
June 20	73,464	5,746	67,718	....
July 4	70,731	6,707	64,024	....
July 18	75,389	6,467	68,922	....
Aug. 1	65,904	9,394	56,510	....
Aug. 15	58,623	14,722	43,001	....
Aug. 29	36,047	26,297	9,750	....
Sept. 12	27,380	36,000	....	8,620
Sept. 26	26,754	44,547	....	17,793
Oct. 10	22,810	54,389	....	31,579
Oct. 24	17,289	67,270	....	49,981
Nov. 7	19,897	71,156	....	51,259
Nov. 21	22,363	73,475	....	51,112
Nov. 30	26,135	62,536	....	36,401
Dec. 14	26,614	61,006	....	34,392
Dec. 31	50,659	33,601	17,058	....

Date	Total Surplus	Total Shortage	Net Surplus	Net Shortage
1913				
Jan. 15	53,230	24,791	28,439	....
Feb. 1	62,045	24,785	37,260	....
Feb. 15	52,700	30,517	22,183	....
Mar. 1	58,529	27,148	31,381	....
Mar. 15	57,998	20,223	37,775	....
April 1	68,792	10,804	57,988	....
April 15	70,715	13,217	57,498	....
May 1	53,977	14,178	39,799	....
May 15	61,269	10,975	50,294	....
May 31	60,291	9,383	50,908	....
June 14	71,126	7,199	63,927	....
June 30	70,740	7,036	63,704	....
July 15	76,280	6,875	69,405	....
Aug. 1	69,716	11,261	58,455	....
Aug. 15	69,253	14,828	54,425	....
Sept. 1	73,576	15,270	58,306	....
Sept. 15	61,753	21,594	40,159	....
Oct. 1	41,994	31,620	10,374	....
Oct. 15	37,198	43,246	....	6,048
Nov. 1	38,276	40,118	....	1,842
Nov. 15	46,059	23,407	22,652	....
Dec. 1	67,466	10,212	57,254	....
Dec. 15	107,513	5,968	101,545	....
1914				
Jan. 1	190,521	1,671	188,850	....
Jan. 15	217,274	2,385	214,889	....
Feb. 1	211,960	2,282	209,678	....
Feb. 14	199,385	2,333	197,052	....
Mar. 1	159,480	5,573	153,907	....
Mar. 15	132,010	7,145	124,865	....
April 1	141,525	2,013	139,512	....
April 15	213,324	455	212,869	....
May 1	230,533	1,654	228,879	....
May 15	239,406	764	238,642	....
June 1	242,572	770	241,802	....
June 15	232,994	660	232,334	....
July 1	220,875	1,333	219,542	....
July 15	228,384	1,843	226,541	....
Aug. 1	198,998	2,333	196,665	....
Aug. 15	174,260	2,115	172,145	....
Sept. 1	165,244	1,918	163,326	....
Sept. 15	138,108	2,059	136,049	....
Oct. 1	133,382	2,355	131,027	....
Oct. 15	154,342	2,360	151,982	....

Date	Total Surplus	Total Shortage	Net Surplus	Net Shortage
1915				
Feb. 1	280,573	1,162	279,411	....
Mar. 1	322,290	543	321,747	....
April 1	327,441	357	327,084	....
May 1	292,269	966	291,303	....
June 1	300,146	218	299,928	....
July 1	276,421	785	275,636	....
Aug. 1	266,312	948	265,364	....
Sept. 1	191,309	6,300	185,009	....
Oct. 1	88,351	10,010	78,341	....
Nov. 1	55,793	27,525	28,268	....
Dec. 1	60,793	23,391	37,402	....
1916				
Jan. 1	70,391	23,310	47,081	....
Feb. 1	53,611	33,312	20,299	....
Mar. 1	43,025	62,562	....	19,537
April 1	52,274	47,636	4,638	....
May 1	63,344	29,983	33,361	....
June 1	70,310	12,617	57,693	....
July 1	68,035	15,801	52,234	....
Aug. 1	49,753	39,991	9,762	....
Sept. 1	45,044	64,917	....	19,873
Sept. 30	34,157	94,854	....	60,697
Nov. 1	24,837	139,745	....	114,908
Dec. 1	21,166	128,944	....	107,778
Dec. 31	39,635	101,882	....	62,247
1917				
Feb. 1	27,069	137,057	....	109,988
Mar. 1	25,294	155,376	....	130,082
Mar. 31	19,467	164,264	....	144,797
May 1	19,026	167,653	....	148,627
June 1	23,850	130,449	....	106,649
June 30	28,669	106,351	....	77,682
Aug. 1	43,481	77,257	....	33,776
Sept. 1	50,783	85,388	....	34,605
Oct. 1	24,297	96,873	....	72,576
Nov. 1	11,293	159,787	....	148,494
Dec. 1	12,122	132,036	....	119,914